

# SYSTEM FOR PERFORMING VASCULAR ANASTOMOSES

## ABSTRACT OF THE DISCLOSURE

Systems for anastomosing a first hollow tissue structure to a second hollow  
5 tissue structure are disclosed. In an exemplary embodiment, such a system comprises at  
least one tissue securing member adapted to secure the first and second hollow tissue  
structures together, and a device for applying the tissue securing member to the tissue  
structures. The tissue securing member is preferably configured to pass through only  
one of the tissue structures, and is movable from a first configuration to a second  
10 configuration which results in a compressive force being applied to the tissue structures.  
The systems are particularly useful for performing anastomosis of blood vessels in heart  
surgery.